10/696829
AUTHOR SEARCH

```
=> e kreitz/au
E1            4     KREITUSS A/AU
E2            1     KREITUSS AIVARS/AU
E3            0 --> KREITZ/AU
E4            1     KREITZ ANDREAS/AU
E5            1     KREITZ D B/AU
E6            1     KREITZ DONALD B/AU
E7            1     KREITZ FERNANDO T/AU
E8            1     KREITZ H/AU
E9            1     KREITZ HANS/AU
E10           3     KREITZ J/AU
E11           3     KREITZ JOHANN/AU
E12           3     KREITZ K/AU

=> e e12
E1            3     KREITZ J/AU
E2            3     KREITZ JOHANN/AU
E3            3 --> KREITZ K/AU
E4            1     KREITZ KARL/AU
E5            1     KREITZ KLAUS/AU
E6            1     KREITZ LEONARD P/AU
E7            3     KREITZ M/AU
E8            2     KREITZ M R/AU
E9            1     KREITZ MARK/AU
E10           5     KREITZ MARK R/AU
E11           1     KREITZ MICHAEL/AU
E12           1     KREITZ N/AU

=> s e9 or e10
              1 "KREITZ MARK"/AU
              5 "KREITZ MARK R"/AU
L2            6 "KREITZ MARK"/AU OR "KREITZ MARK R"/AU

=> d 1-6 ibib abs

L2   ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2006:272963  CAPLUS
DOCUMENT NUMBER:          144:318592
TITLE:                    Multi-layer tablets and bioadhesive dosage forms
INVENTOR(S):              Nangia, Avinash; Jacob, Jules; Mathiowitz, Edith;
                          Ricketts, Thomas L.; Kreitz, Mark R.
PATENT ASSIGNEE(S):       Spherics, Inc., USA
SOURCE:                   PCT Int. Appl., 75 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   5
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     WO 2006031420         A2    20060323    WO 2005-US30651         20050829
     WO 2006031420         A3    20061130
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
             NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
             SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
             ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
```

GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

US 2005201974 A1 20050915 US 2004-9327 20041209

WO 2005084639 A2 20050915 WO 2005-US7525 20050303

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

WO 2006026504 A2 20060309 WO 2005-US30553 20050829

WO 2006026504 A3 20060810

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

WO 2006026556 A2 20060309 WO 2005-US30681 20050829

WO 2006026556 A3 20060810

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

AU 2005285298 A1 20060323 AU 2005-285298 20050829

CA 2578845 A1 20060323 CA 2005-2578845 20050829

EP 1784167 A2 20070516 EP 2005-792519 20050829

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU

EP 1789024 A2 20070530 EP 2005-792479 20050829

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR

PRIORITY APPLN. INFO.:

US 2004-604990P	P	20040827
US 2004-604991P	P	20040827
US 2004-605198P	P	20040827
US 2004-605199P	P	20040827
US 2004-605200P	P	20040827
US 2004-605201P	P	20040827
US 2004-607905P	P	20040908
US 2004-9327	A	20041209
US 2004-635812P	P	20041213
US 2005-650191P	P	20050204
US 2005-650375P	P	20050204
WO 2005-US7525	A	20050303

US 2005-676383P	P	20050429
US 2003-528042P	P	20031209
US 2004-549777P	P	20040303
WO 2005-US30552	W	20050829
WO 2005-US30651	W	20050829

AB Bioadhesives coatings increase the gastrointestinal retention time of orally-ingested medicaments. Certain bioadhesive coatings producing a fracture strength of at least 100 N/m2, as measured on rat intestine, when applied to at least one surface of a pharmaceutical dosage form for oral delivery of a drug, result in a gastrointestinal retention time of at least 4 h in a fed beagle dog model, during which the drug is released from the dosage form. Multi-layer tablets, particularly those including hydrophobic excipients, are useful in administering hygroscopic and/or deliquescent drugs. In addition, varying the amount of drug in multi-layer tablets allows the release rate of the drug to be controlled. A tri-layer tablet was prepared containing sodium valproate 59.0, Et cellulose 40.0, magnesium stearate 1.0% in the inner layer; and sodium valproate 7.65, Spheromer I 91.35, and magnesium stearate 1.0% in the outer layer.

L2 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	2006:211525 CAPLUS
DOCUMENT NUMBER:	144:280591
TITLE:	Oral administration of poorly absorbed drugs, methods and compositions related thereto
INVENTOR(S):	Mathiowitz, Edith; Nangia, Avinash; Jacob, Jules S.; Kreitz, Mark R.; Doane, Rebecca; Donnelly, Ryan
PATENT ASSIGNEE(S):	Spherics, Inc., USA
SOURCE:	PCT Int. Appl., 86 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	5
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006026592	A2	20060309	WO 2005-US30774	20050829
WO 2006026592	A3	20060914		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
US 2005201974	A1	20050915	US 2004-9327	20041209
US 2005249799	A1	20051110	US 2005-72098	20050303
WO 2006026504	A2	20060309	WO 2005-US30553	20050829
WO 2006026504	A3	20060810		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,				

CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

WO 2006026556 A2 20060309 WO 2005-US30681 20050829

WO 2006026556 A3 20060810

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

EP 1789024 A2 20070530 EP 2005-792479 20050829

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR

PRIORITY APPLN. INFO.:

US 2004-604990P	P	20040827
US 2004-604991P	P	20040827
US 2004-605198P	P	20040827
US 2004-605199P	P	20040827
US 2004-605200P	P	20040827
US 2004-605201P	P	20040827
US 2004-607905P	P	20040908
US 2004-9327	A	20041209
US 2004-635812P	P	20041213
US 2005-650191P	P	20050204
US 2005-650375P	P	20050204
US 2005-72098	A	20050303
US 2005-676383P	P	20050429
US 2003-528042P	P	20031209
US 2004-549777P	P	20040303
WO 2005-US30552	W	20050829

AB The invention provides methods and compns. for the delivery of poorly absorbed drugs. In some embodiments, the drug is administered in the form of microparticles or nanoparticles. In other embodiments, the drug is encapsulated with polymer. In certain embodiments, the drug is administered in combination with an absorption enhancer. The invention further relates to dosing schedules to maintain the oral bioavailability of poorly absorbed drugs, such as paclitaxel. In another embodiment, the method involves administering inhibitors of one or more inhibitors of a drug efflux pump in combination with a poorly absorbed drug. Formulations for oral administration were prepared by suspending the paclitaxel nanoparticles in a dispersant (PBS containing 0.5% sodium lauryl sulfate, 0.5%, polyvinylpyrrolidone, and 0.117% ketoconazole), at 5.6 mg/mL, and sonicating for 4 min.

L2 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:934304 CAPLUS

DOCUMENT NUMBER: 141:384332

TITLE: Nanoparticulate bioactive agents

INVENTOR(S): Kreitz, Mark R.; Jong, Yong S.; Mathiowitz, Edith; Enscore, David J.; Bassett, Michael J.

PATENT ASSIGNEE(S): Spherics, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 24 pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004220081	A1	20041104	US 2003-696829	20031030
CA 2504268	A1	20041118	CA 2003-2504268	20031030
WO 2004098570	A1	20041118	WO 2003-US34575	20031030
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003304108	A1	20041126	AU 2003-304108	20031030
AU 2003304108	B2	20070322		
EP 1569620	A1	20050907	EP 2003-816481	20031030
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006514698	T	20060511	JP 2005-510834	20031030
PRIORITY APPLN. INFO.:			US 2002-423093P	P 20021030
			US 2003-490343P	P 20030725
			WO 2003-US34575	W 20031030

AB Bioactive agents may be reproducibly converted into particles having diams. in the range of about 5 to about 2000 nm (nm). Conversion is accomplished by dissolving the bioactive agent in a solvent for the bioactive agent, and rapidly altering the polarity of the solution to make it a non-solvent for the bioactive agent, for example by diluting the bioactive agent solution with an excess of a liquid that is a non-solvent for the bioactive agent but is miscible with the solvent. Precipitated bioactive agent nanoparticles are collected by centrifugation, filtration or lyophilization. The nanoparticles have a relatively narrow size distribution, and the average diameter can be controlled by choice of solvent and non-solvent. The nanoparticles are typically amorphous. A surfactant may be added to ensure dispersion of the particles when administered. In the preferred embodiment, the bioactive agent is a drug with low aqueous solubility Bioadhesive nano- and microparticulate formulations were prepared containing paclitaxel, fumaric anhydride oligomer, PVP, and PLGA.

L2 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:295138 CAPLUS
DOCUMENT NUMBER: 129:19596
TITLE: Controlled delivery of therapeutics from microporous membranes. II. In vitro degradation and release of heparin-loaded poly(DL-lactide-co-glycolide)
AUTHOR(S): Kreitz, Mark R.; Domm, Jennifer A.; Mathiowitz, Edith
CORPORATE SOURCE: Department of Molecular Pharmacology, Physiology and Biotechnology, Artificial Organs Laboratory, Brown University, Providence, RI, 02912, USA
SOURCE: Biomaterials (1998), Volume Date 1997, 18(24), 1645-1651
CODEN: BIMADU; ISSN: 0142-9612
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In vitro degradation and release of five types of heparin/surfactant-loaded poly(D,L-lactide-coglycolide 50:50) (PLG) microspheres alone and also incorporated within microporous polyurethane tubes were studied over a 3-mo period. Degradation was studied with SEM, Fourier-transform IR spectroscopy (FTIR), gel permeation chromatog. (GPC) and differential scanning calorimetry (DSC). Heparin release was characterized using a

modified Azure A assay. SEM suggests that microspheres may be entrapped within polyurethane fibrils of the polyurethane tubes, thereby reducing contact with their hydrated environment. FTIR transmittance spectra confirm microsphere incorporation within the polyurethane tubes and PLG ester hydrolysis occurring over the 3-mo period. A correlation was observed between decreasing mol. wts. and glass transition temps. (Tg). The microspheres alone exhibited a change in Tg, but not when incorporated within the microporous tubes. Release profiles revealed a burst effect occurring during the first 4 h and total release of the heparin from the microspheres by 12 wk.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:517626 CAPLUS
DOCUMENT NUMBER: 121:117626
TITLE: Characterization of a polyanhydride series by FTIR
AUTHOR(S): Kreitz, Mark R.; Pekarek, Kathleen J.; Mathiowitz, Edith
CORPORATE SOURCE: Artificial Organs Lab., Brown Univ., Providence, RI, 02912, USA
SOURCE: Materials Research Society Symposium Proceedings (1994), 331(Biomaterials for Drug and Cell Delivery), 235-8
CODEN: MRSPDH; ISSN: 0272-9172
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Using Fourier-transform IR (FTIR) spectroscopy the authors have characterized a polyanhydride copolymer series composed of various ratios of the diacids 1,3-bis(p-carboxyphenoxy)propane (CPP) and sebacic acid (SA). Typical peaks corresponding to the aliphatic-aliphatic (SA-SA), aromatic-aliphatic (CPP-SA), and aromatic-aromatic (CPP-CPP) diacids were found in the 1820-1710 cm-1 wavenumber range. Further peaks corresponding to the SA-SA diacids were identified in the fingerprint region at 1382, 1360, 1307, and 1286 cm-1. These peak characterizations facilitate identification of bond distribution in the CPP-SA copolymer as well as other polyanhydride copolymers, and correlate well with previously presented information obtained with NMR spectroscopy and X-ray powder diffraction.

L2 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:650854 CAPLUS
DOCUMENT NUMBER: 119:250854
TITLE: Morphological characterization of bioerodible polymers. 2. Characterization of polyanhydrides by Fourier-transform infrared spectroscopy
AUTHOR(S): Mathiowitz, Edith; Kreitz, Mark; Pekarek, Kathleen
CORPORATE SOURCE: Brown Univ., Providence, RI, 02912, USA
SOURCE: Macromolecules (1993), 26(25), 6749-55
CODEN: MAMOBX; ISSN: 0024-9297
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The FTIR spectroscopy of a series of polyanhydrides made of the following diacids: sebacic acid (I), 1,3-bis(p-carboxyphenoxy)propane, 1,6-bis(p-carboxyphenoxy)hexane, (carboxyphenoxy)methane, fumaric acid, and 5-(p-carboxyphenoxy)valeric acid. All the polymers revealed typical anhydride peaks corresponding to aliphatic-aliphatic, aliphatic-aromatic, and aromatic-aromatic diads at wavenumbers 1820-1710 cm-1. Addnl. paired peaks corresponding to I-I diads were identified in the fingerprint region at 1382, 1360 and 1307, 1286 cm-1. The second pair was assigned to the crystalline regions of the copolymers. This information allows easy identification of bond distribution in a variety of polyanhydrides, and correlates well with information previously presented using NMR

spectroscopy and x-ray powder diffraction.

```
=> FIL STNGUIDE
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    24.42      24.63

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -4.68      -4.68

FILE 'STNGUIDE' ENTERED AT 13:45:13 ON 08 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Aug  3, 2007 (20070803/UP).

=> e "jong, y"/au
'AU' IS NOT A VALID EXPAND FIELD CODE FOR FILE 'STNGUIDE'
The indicated field code is not available for EXPAND in this
file.  To see a list of valid EXPAND field codes, enter HELP
SFIELDS at an arrow prompt (=>).

=> e jong y/au
'AU' IS NOT A VALID EXPAND FIELD CODE FOR FILE 'STNGUIDE'
The indicated field code is not available for EXPAND in this
file.  To see a list of valid EXPAND field codes, enter HELP
SFIELDS at an arrow prompt (=>).

=> e jong/au
'AU' IS NOT A VALID EXPAND FIELD CODE FOR FILE 'STNGUIDE'
The indicated field code is not available for EXPAND in this
file.  To see a list of valid EXPAND field codes, enter HELP
SFIELDS at an arrow prompt (=>).

=> e kreitz/au
'AU' IS NOT A VALID EXPAND FIELD CODE FOR FILE 'STNGUIDE'
The indicated field code is not available for EXPAND in this
file.  To see a list of valid EXPAND field codes, enter HELP
SFIELDS at an arrow prompt (=>).

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.18      24.81

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -4.68

FILE 'CAPLUS' ENTERED AT 13:46:51 ON 08 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)
```

FILE COVERS 1907 - 8 Aug 2007 VOL 147 ISS 7
FILE LAST UPDATED: 7 Aug 2007 (20070807/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

```
=> e jong/au
E1            3     JONFORSEN M/AU
E2            5     JONFORSEN MARIA/AU
E3            0 --> JONG/AU
E4            1     JONG A/AU
E5            1     JONG A DE/AU
E6            1     JONG A G ANTONISSE DE/AU
E7            1     JONG A L DE/AU
E8            1     JONG A S/AU
E9            1     JONG A Y S/AU
E10           3     JONG AGNES J O/AU
E11          27     JONG AMBROSE/AU
E12          27     JONG AMBROSE Y/AU

=> e jong, y/au
E1            1     JONG ZHAN JUN/AU
E2            1     JONG ZON WANG/AU
E3            0 --> JONG, Y/AU
E4            4     JONGANURAKKUN BENJAMAS/AU
E5            3     JONGARAMRUONG JONGKOLNEE/AU
E6            1     JONGAUTCHARLYAKUL SUTEE/AU
E7            1     JONGBLOED A/AU
E8            1     JONGBLOED A A/AU
E9           35     JONGBLOED A W/AU
E10          10     JONGBLOED AGE W/AU
E11           1     JONGBLOED BERT/AU
E12           2     JONGBLOED F/AU

=> e jong, yong/au
E1            1     JONG ZHAN JUN/AU
E2            1     JONG ZON WANG/AU
E3            0 --> JONG, YONG/AU
E4            4     JONGANURAKKUN BENJAMAS/AU
E5            3     JONGARAMRUONG JONGKOLNEE/AU
E6            1     JONGAUTCHARLYAKUL SUTEE/AU
E7            1     JONGBLOED A/AU
E8            1     JONGBLOED A A/AU
E9           35     JONGBLOED A W/AU
E10          10     JONGBLOED AGE W/AU
E11           1     JONGBLOED BERT/AU
E12           2     JONGBLOED F/AU

=> e mathiowitz, e/au
E1          112     MATHIOWITZ EDITH/AU
E2            5     MATHIOWITZ GEORGE/AU
E3            0 --> MATHIOWITZ, E/AU
E4           13     MATHIPRAKASAM B/AU
E5            2     MATHIPRAKASAM BALAKRISHNAN/AU
E6            2     MATHIR Z M/AU
E7            1     MATHIRAJAN V G/AU
E8            7     MATHIRON CLAUDE/AU
E9            1     MATHIRU L/AU
```

```
E10          2     MATHIS/AU
E11         40     MATHIS A/AU
E12          1     MATHIS A GSCHAEDLER/AU

=> e e1
E1           2     MATHIOWETZ HERMINE/AU
E2          76     MATHIOWITZ E/AU
E3         112 --> MATHIOWITZ EDITH/AU
E4           5     MATHIOWITZ GEORGE/AU
E5          13     MATHIPRAKASAM B/AU
E6           2     MATHIPRAKASAM BALAKRISHNAN/AU
E7           2     MATHIR Z M/AU
E8           1     MATHIRAJAN V G/AU
E9           7     MATHIRON CLAUDE/AU
E10          1     MATHIRU L/AU
E11          2     MATHIS/AU
E12         40     MATHIS A/AU

=> s e2 or e3
            76 "MATHIOWITZ E"/AU
           112 "MATHIOWITZ EDITH"/AU
L3         188 "MATHIOWITZ E"/AU OR "MATHIOWITZ EDITH"/AU

=> s l3 and py<=2003
      23927540 PY<=2003
L4          161 L3 AND PY<=2003

=> s l4 and nanopartic?
          89568 NANOPARTIC?
L5            5 L4 AND NANOPARTIC?

=> d 1-5 ibib abs

L5   ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2003:133130  CAPLUS
DOCUMENT NUMBER:          138:175890
TITLE:                    Methods for micronization of hydrophobic drugs
INVENTOR(S):              Mathiowitz, Edith; Thanos, Christopher; Liu,
                          Zhi
PATENT ASSIGNEE(S):       Brown University Research Foundation, USA
SOURCE:                   PCT Int. Appl., 61 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.        DATE
     ---------------      ----   --------    --------------------   --------
     WO 2003013683         A1    20030220    WO 2002-US25134        20020808 <--
         W:  AU, BG, CA, CZ, EE, JP, SK
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT,
             LU, MC, NL, PT, SE, SK, TR
     CA 2456806            A1    20030220    CA 2002-2456806        20020808 <--
     AU 2002355424         A1    20030224    AU 2002-355424         20020808 <--
     US 2003108669         A1    20030612    US 2002-215208         20020808 <--
     US 6746635            B2    20040608
     EP 1423175            A1    20040602    EP 2002-794680         20020808
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI, CY, TR, BG, CZ, EE, SK
     JP 2004537401         T     20041216    JP 2003-518681         20020808
     US 2004166168         A1    20040826    US 2004-758990         20040116
     US 6824791            B2    20041130
     US 2005100595         A1    20050512    US 2004-2842           20041130
```

PRIORITY APPLN. INFO.: US 2001-311043P P 20010808
US 2002-215208 A1 20020808
WO 2002-US25134 W 20020808
US 2004-758990 A1 20040116

AB The invention involves methods and products related to the micronization of hydrophobic drugs. A method of micronizing hydrophobic drugs using a set of solns. including an aqueous solution is provided. The invention also relates to products of micronized hydrophobic drugs and related methods of use. Sub-micron dicoumarol particles were obtained by dissoln. in DMSO, dispersion of the solution in iso-PrOH, addition of water and filtration of the precipitated nanoparticles. The powder was frozen and lyophilized for 48 h. The micronized formulation showed the most rapid dissoln., reaching a concentration of of 36.9 μg/mL after only 24 h.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:347036 CAPLUS
DOCUMENT NUMBER: 138:78286
TITLE: Enthalpic relaxation of poly(lactide-co-glycolide) 50:50 microspheres
AUTHOR(S): Bailey, N. A.; Sandor, M.; Kreitz, M.; Mathiowitz, E.
CORPORATE SOURCE: Department of Molecular Pharmacology, Physiology and Biotechnology, Brown University, Providence, RI, 02912, USA
SOURCE: Proceedings - 28th International Symposium on Controlled Release of Bioactive Materials and 4th Consumer & Diversified Products Conference, San Diego, CA, United States, June 23-27, 2001 (2001), Volume 1, 648-649. Controlled Release Society: Minneapolis, Minn.
CODEN: 69CNY8
DOCUMENT TYPE: Conference
LANGUAGE: English

AB The phenomena of enthalpic relaxation was considered for poly(lactide-co-glycolide) (PLGA, 50:50), in terms of storage of nanoparticles for use as a controlled delivery system. Samples were stored for different times and temps. below the glass transition temperature (Tg). Relaxation was found to occur at a significant rate up to 15 degrees below the Tg, so as to alter the properties of the polymer. The importance of storing this system at subambient temps. was reiterated.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:271054 CAPLUS
DOCUMENT NUMBER: 136:284473
TITLE: Methods and compositions for enhancing the bioadhesive properties of polymers
INVENTOR(S): Jacob, Jules S.; Mathiowitz, Edith
PATENT ASSIGNEE(S): Brown University Research Foundation, USA
SOURCE: U.S., 16 pp., Cont.-in-part of U.S. Ser. No. 135,705.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6368586	B1	20020409	US 2000-535421	20000327 <--
US 5985312	A	19991116	US 1996-592565	19960126 <--
US 6123965	A	20000926	US 1998-135705	19980818 <--

PRIORITY APPLN. INFO.: US 1996-592565 A3 19960126
US 1998-135705 A2 19980818

AB Methods and compns. are provided for enhancing the bioadhesive properties of polymers used in drug delivery devices. The bioadhesive properties of a polymer are enhanced by incorporating a water-insol. metal compound, e.g., a metal oxide, in an amount effective to improve, upon exposure of the metal compound at a surface of the polymer, adhesion of the polymer to the mucosal membrane. The metal compds. can be incorporated within a wide range of polymers including proteins, polysaccharides and synthetic biocompatible polymers. In one embodiment, metal oxides can be incorporated within polymers used to form or coat drug delivery devices, such as microspheres, which contain a drug or diagnostic agent. The metal oxides can be provided in the form of a fine dispersion of particles on the surface of a polymer that coats or forms the devices, which enhances the ability of the devices to bind to mucosal membranes. The polymers, for example in the form of microspheres, have improved ability to adhere to mucosal membranes, and thus can be used to deliver a drug or diagnostic agent via any of a range of mucosal membrane surfaces including those of the gastrointestinal, respiratory, excretory and reproductive tracts. For example, polystyrene (2 KDa) microspheres containing 40% ferric oxide (weight/weight) were prepared by solvent evaporation in the size range 10-300 μm. A test using a rat everted intestinal sac bioassay showed that 38% of the initial dose of microspheres was bound to small intestine.

REFERENCE COUNT: 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:42265 CAPLUS
DOCUMENT NUMBER: 128:119653
TITLE: Methods and compositions for enhancing the bioadhesive properties of polymers using organic excipients
INVENTOR(S): Santos, Camilla A.; Jacob, Jules S.; Hertzog, Benjamin A.; Carino, Gerardo P.; Mathiowitz, Edith
PATENT ASSIGNEE(S): Brown University Research Foundation, USA
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9749385	A1	19971231	WO 1997-US10256	19970612 <--
W: JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5955096	A	19990921	US 1996-670326	19960625 <--
EP 912166	A1	19990506	EP 1997-929973	19970612 <--
EP 912166	B1	20030115		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000513355	T	20001010	JP 1998-503153	19970612 <--
AT 230978	T	20030215	AT 1997-929973	19970612 <--

PRIORITY APPLN. INFO.: US 1996-670326 A 19960625
WO 1997-US10256 W 19970612

AB Methods and compns. are provided for enhancing the bioadhesive properties of polymers used in drug delivery systems. The bioadhesive properties of a polymer are enhanced by incorporating an anhydride oligomer into the polymer to enhance the ability of the polymer to adhere to a tissue surface such as a mucosal membrane. Anhydride oligomers which enhance the bioadhesive properties of a polymer include oligomers synthesized from dicarboxylic acid monomers, preferably those found in Krebs glycolysis cycle, especially fumaric acid. The oligomers can be incorporated within a wide

range of polymers including proteins, polysaccharides and synthetic biocompatible polymers. In one embodiment, anhydride oligomers can be incorporated within polymers used to form or coat drug delivery systems, such as microspheres, which contain a drug or diagnostic agent. The oligomers can either be solubilized and blended with the polymers before manufacture or else used as a coating with polymers over existing systems. The polymers, for example in the form of microspheres, have improved ability to adhere to mucosal membranes, and thus can be used to deliver a drug or diagnostic agent via any of a range of mucosal membrane surfaces including those of the gastrointestinal, respiratory, excretory and reproductive tracts. Fumaric acid oligomer (mol. weight 240-280) 0.1 g and 0.2 g glycolide-lactide copolymer were dissolved in 10 mL methylene chloride and 0.022 g of micronized FeO was added to the polymer solution A Tris buffer solution containing Zn insulin 10 mg/mL was mixed with 10 % ZnSO4 solution to form
crystals. The Zn insulin suspension then was added to the polymer solution and dispersed into petroleum ether. The nanospheres were collected and lyophilized. An in vitro release study of nanospheres loaded with 1.6 % insulin showed that 60 % of insulin was released within 2 h and that 95 % was released within 72 h.

L5 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:215765 CAPLUS
DOCUMENT NUMBER: 126:203728
TITLE: A process for preparing pharmaceutical microparticles through phase inversion phenomena
INVENTOR(S): Mathiowitz, Edith; Chickering, Donald E., III; Jong, Yong S.; Jacob, Jules S.
PATENT ASSIGNEE(S): Brown University Research Foundation, USA
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9703657	A1	19970206	WO 1996-US12024	19960719 <--
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6143211	A	20001107	US 1996-686928	19960703 <--
CA 2227284	A1	19970206	CA 1996-2227284	19960719 <--
AU 9665050	A	19970218	AU 1996-65050	19960719 <--
AU 718482	B2	20000413		
EP 844871	A1	19980603	EP 1996-924654	19960719 <--
EP 844871	B1	20041006		
R: DE, FR, GB				
JP 2001513071	T	20010828	JP 1997-506925	19960719 <--
US 6235224	B1	20010522	US 1999-442723	19991118 <--
US 2001042932	A1	20011122	US 2001-853329	20010511 <--
US 6616869	B2	20030909		
US 2004070093	A1	20040415	US 2003-639770	20030812

PRIORITY APPLN. INFO.:		
US 1995-1365P	P	19950721
US 1996-686928	A	19960703
WO 1996-US12024	W	19960719
US 1999-442723	A3	19991118
US 2001-853329	A1	20010511

AB A process for preparing pharmaceutical nanoparticles and microparticles is provided. The process involves forming a mixture of a polymer and a solvent, wherein the solvent is present in a continuous phase and introducing the mixture into an effective amount of a nonsolvent to cause the spontaneous formation of microparticles. Thus, 0.1 g spray-dried dicumarol (I) was added to a solution of 5% poly(fumaric

acid-sebacic acid) in methylene chloride and the mixture was rapidly added to 100 mL of petroleum ether without stirring and immediately filtered. The resulting microspheres were washed with petroleum ether and dried. The release of I from the microspheres was at least ten-fold less than the spray-dried I used as control after 3 h.

```
=> FIL STNGUIDE
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     24.54      49.35

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     -3.90      -8.58

FILE 'STNGUIDE' ENTERED AT 13:49:35 ON 08 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Aug  3, 2007 (20070803/UP).

=> e enscore, d/au
'AU' IS NOT A VALID EXPAND FIELD CODE FOR FILE 'STNGUIDE'
The indicated field code is not available for EXPAND in this
file.  To see a list of valid EXPAND field codes, enter HELP
SFIELDS at an arrow prompt (=>).

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                      0.66      50.01

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                      0.00      -8.58

FILE 'CAPLUS' ENTERED AT 13:56:03 ON 08 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)
```



```
FILE COVERS 1907 - 8 Aug 2007  VOL 147 ISS 7
FILE LAST UPDATED: 7 Aug 2007  (20070807/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

=> e enscore, d/au
E1            2     ENSCORE DAVID JAMES/AU
```

```
E2            1     ENSCORE RUSSELL E/AU
E3            0 --> ENSCORE, D/AU
E4            1     ENSEEG LEPMI/AU
E5            1     ENSEKI YOSHIAKI/AU
E6            2     ENSEL C/AU
E7            1     ENSEL S M/AU
E8            2     ENSEL SUSAN/AU
E9            8     ENSEL SUSAN M/AU
E10           6     ENSELBERG CHARLES D/AU
E11           2     ENSELEIT F/AU
E12          12     ENSELEIT FRANK/AU

=> e e1
E1            3     ENSCORE DAVID/AU
E2           13     ENSCORE DAVID J/AU
E3            2 --> ENSCORE DAVID JAMES/AU
E4            1     ENSCORE RUSSELL E/AU
E5            1     ENSEEG LEPMI/AU
E6            1     ENSEKI YOSHIAKI/AU
E7            2     ENSEL C/AU
E8            1     ENSEL S M/AU
E9            2     ENSEL SUSAN/AU
E10           8     ENSEL SUSAN M/AU
E11           6     ENSELBERG CHARLES D/AU
E12           2     ENSELEIT F/AU

=> s e1 or e2 or e3
              3 "ENSCORE DAVID"/AU
             13 "ENSCORE DAVID J"/AU
              2 "ENSCORE DAVID JAMES"/AU
L6           18 "ENSCORE DAVID"/AU OR "ENSCORE DAVID J"/AU OR "ENSCORE DAVID
                JAMES"/AU

=> s l6 and nanopartic?
          89568 NANOPARTIC?
L7            2 L6 AND NANOPARTIC?

=> d 1-2 ibib abs

L7   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2004:934304  CAPLUS
DOCUMENT NUMBER:          141:384332
TITLE:                    Nanoparticulate bioactive agents
INVENTOR(S):              Kreitz, Mark R.; Jong, Yong S.; Mathiowitz, Edith;
                          Enscore, David J.; Bassett, Michael J.
PATENT ASSIGNEE(S):       Spherics, Inc., USA
SOURCE:                   U.S. Pat. Appl. Publ., 24 pp.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     --------------       ----   --------    --------------------    --------
     US 2004220081         A1    20041104    US 2003-696829          20031030
     CA 2504268            A1    20041118    CA 2003-2504268         20031030
     WO 2004098570         A1    20041118    WO 2003-US34575         20031030
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
             TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
```

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003304108	A1	20041126	AU 2003-304108	20031030
AU 2003304108	B2	20070322		
EP 1569620	A1	20050907	EP 2003-816481	20031030
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006514698	T	20060511	JP 2005-510834	20031030
PRIORITY APPLN. INFO.:			US 2002-423093P	P 20021030
			US 2003-490343P	P 20030725
			WO 2003-US34575	W 20031030

AB Bioactive agents may be reproducibly converted into particles having diams. in the range of about 5 to about 2000 nm (nm). Conversion is accomplished by dissolving the bioactive agent in a solvent for the bioactive agent, and rapidly altering the polarity of the solution to make it a non-solvent for the bioactive agent, for example by diluting the bioactive agent solution with an excess of a liquid that is a non-solvent for the bioactive agent but is miscible with the solvent. Precipitated bioactive agent nanoparticles are collected by centrifugation, filtration or lyophilization. The nanoparticles have a relatively narrow size distribution, and the average diameter can be controlled by choice of solvent and non-solvent. The nanoparticles are typically amorphous. A surfactant may be added to ensure dispersion of the particles when administered. In the preferred embodiment, the bioactive agent is a drug with low aqueous solubility Bioadhesive nano- and microparticulate formulations were prepared containing paclitaxel, fumaric anhydride oligomer, PVP, and PLGA.

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	2003:472357 CAPLUS
DOCUMENT NUMBER:	139:41822
TITLE:	Formation and isolation of pharmaceutical microparticles
INVENTOR(S):	Bassett, Michael J.; Jacob, Jules; Enscore, David J.
PATENT ASSIGNEE(S):	Spherics, Inc., USA
SOURCE:	PCT Int. Appl., 45 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003049701	A2	20030619	WO 2002-US39547	20021210
WO 2003049701	A3	20031030		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2469718	A1	20030619	CA 2002-2469718	20021210
AU 2002360549	A1	20030623	AU 2002-360549	20021210
US 2003147965	A1	20030807	US 2002-316128	20021210
EP 1460897	A2	20040929	EP 2002-795811	20021210

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

PRIORITY APPLN. INFO.: US 2001-339979P P 20011210
US 2001-339980P P 20011210
WO 2002-US39547 W 20021210

AB A process for preparing nanoparticles, microparticles and nanoencapsulated products by using the phase inversion nanoencapsulation (PIN) process is provided. The invention involves using additives to reduce the aggregation or coalescence of the PIN nanoparticles, microparticles, or nanoencapsulated products during their formation and collection and to facilitate the recovery of said nanoparticles, microparticles, or nanoencapsulated products. Resomer RG502 was dissolved at 3% in methylene chloride. Isopropanol 25% (volume/volume) in water non-solvent was added to the above solution and the mixture was agitated. The product was then spray-dried into the spray-drying apparatus and collected.

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	17.46	67.47

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.56	-10.14

FILE 'CAPLUS' ENTERED AT 14:00:57 ON 08 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 8 Aug 2007 VOL 147 ISS 7
FILE LAST UPDATED: 7 Aug 2007 (20070807/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> e bassett, m/au

E1	3		BASSETT WM H/AU
E2	6		BASSETT WM H JR/AU
E3	0	-->	BASSETT, M/AU
E4	27		BASSETTE R/AU
E5	22		BASSETTE RICHARD/AU
E6	29		BASSETTI A/AU
E7	1		BASSETTI ALESSANDRA/AU
E8	9		BASSETTI ANGELO/AU
E9	17		BASSETTI B/AU
E10	3		BASSETTI C/AU
E11	2		BASSETTI C L/AU
E12	1		BASSETTI CHESTER FLOYD/AU

```
=> e bassett, michael/au
E1            3      BASSETT WM H/AU
E2            6      BASSETT WM H JR/AU
E3            0 --> BASSETT, MICHAEL/AU
E4           27      BASSETTE R/AU
E5           22      BASSETTE RICHARD/AU
E6           29      BASSETTI A/AU
E7            1      BASSETTI ALESSANDRA/AU
E8            9      BASSETTI ANGELO/AU
E9           17      BASSETTI B/AU
E10           3      BASSETTI C/AU
E11           2      BASSETTI C L/AU
E12           1      BASSETTI CHESTER FLOYD/AU

=> e bassett, mike/au
E1            3      BASSETT WM H/AU
E2            6      BASSETT WM H JR/AU
E3            0 --> BASSETT, MIKE/AU
E4           27      BASSETTE R/AU
E5           22      BASSETTE RICHARD/AU
E6           29      BASSETTI A/AU
E7            1      BASSETTI ALESSANDRA/AU
E8            9      BASSETTI ANGELO/AU
E9           17      BASSETTI B/AU
E10           3      BASSETTI C/AU
E11           2      BASSETTI C L/AU
E12           1      BASSETTI CHESTER FLOYD/AU

=> d his

     (FILE 'HOME' ENTERED AT 13:42:38 ON 08 AUG 2007)

     FILE 'CAPLUS' ENTERED AT 13:43:17 ON 08 AUG 2007
                E KREITZ, MARK
L1            0 S KREITZ/AU
                E KREITZ/AU
                E E12
L2            6 S E9 OR E10

     FILE 'STNGUIDE' ENTERED AT 13:45:13 ON 08 AUG 2007

     FILE 'CAPLUS' ENTERED AT 13:46:51 ON 08 AUG 2007
                E JONG/AU
                E JONG, Y/AU
                E JONG, YONG/AU
                E MATHIOWITZ, E/AU
                E E1
L3          188 S E2 OR E3
L4          161 S L3 AND PY<=2003
L5            5 S L4 AND NANOPARTIC?

     FILE 'STNGUIDE' ENTERED AT 13:49:35 ON 08 AUG 2007

     FILE 'CAPLUS' ENTERED AT 13:56:03 ON 08 AUG 2007
                E ENSCORE, D/AU
                E E1
L6           18 S E1 OR E2 OR E3
L7            2 S L6 AND NANOPARTIC?

     FILE 'CAPLUS' ENTERED AT 14:00:57 ON 08 AUG 2007
                E BASSETT, M/AU
                E BASSETT, MICHAEL/AU
                E BASSETT, MIKE/AU
```

```
=> e nanotube
E1            6     NANOTUB/BI
E2            1     NANOTUBAL/BI
E3        35185 --> NANOTUBE/BI
E4            1     NANOTUBECATHODES/BI
E5           14     NANOTUBED/BI
E6            1     NANOTUBEE/BI
E7            1     NANOTUBEES/BI
E8            1     NANOTUBELETS/BI
E9            2     NANOTUBELIKE/BI
E10           3     NANOTUBER/BI
E11           7     NANOTUBERS/BI
E12       42429     NANOTUBES/BI

=> s carbon nanotub? (L) THU/rl
        1297948 CARBON
          27816 CARBONS
        1307827 CARBON
                  (CARBON OR CARBONS)
          44032 NANOTUB?
          33294 CARBON NANOTUB?
                  (CARBON(W)NANOTUB?)
         923491 THU/RL
L1          192 CARBON NANOTUB? (L) THU/RL

=> s l1 and py<=2001
       21892590 PY<=2001
L2            1 L1 AND PY<=2001

=> d

L2   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2001:88073  CAPLUS
DN   134:285528
TI   Liposomes vs. carbon nanotubes as small molecule vessels for drug delivery
AU   Kirschner, Austin N.; Santosa, David H.; Wilson, Stephen R.
CS   Department of Chemistry, New York University, New York, NY, 10003, USA
SO   Proceedings - Electrochemical Society (2000), 2000-11(Fullerenes
     2000--Volume 9: Functionalized Fullerenes), 250-257
     CODEN: PESODO; ISSN: 0161-6374
PB   Electrochemical Society
DT   Journal
LA   English
RE.CNT  34    THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> s nanopart? and water insoluble and (thu or pac or dma or pkt)/rl
          90424 NANOPART?
        2570329 WATER
         266445 WATERS
        2627504 WATER
                  (WATER OR WATERS)
          20395 INSOLUBLE
           1293 INSOLUBLES
          21588 INSOLUBLE
                  (INSOLUBLE OR INSOLUBLES)
         185462 INSOL
           1612 INSOLS
         186725 INSOL
                  (INSOL OR INSOLS)
         198757 INSOLUBLE
                  (INSOLUBLE OR INSOL)
          26477 WATER INSOLUBLE
```

```
                (WATER(W)INSOLUBLE)
        923491 THU/RL
        336422 PAC/RL
         41461 DMA/RL
         42460 PKT/RL
L3           80 NANOPART? AND WATER INSOLUBLE AND (THU OR PAC OR DMA OR PKT)/RL

=> s l3 and py<=2001
      21892590 PY<=2001
L4           24 L3 AND PY<=2001

=> s l4 and particle size
        760354 PARTICLE
        833407 PARTICLES
       1265207 PARTICLE
                (PARTICLE OR PARTICLES)
       1082344 SIZE
        144207 SIZES
       1159788 SIZE
                (SIZE OR SIZES)
        269824 PARTICLE SIZE
                (PARTICLE(W)SIZE)
L5           11 L4 AND PARTICLE SIZE

=> s 1-11 ti
       9245721 1
        988058 11
        361672 TI
          1249 TIS
        362602 TI
                (TI OR TIS)
L6            5 1-11 TI
                (1(W)11(W)TI)

=> d l5 1-11 ti

L5   ANSWER 1 OF 11  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Protein stabilized pharmacologically active agents, methods for the
     preparation thereof, and methods for the use thereof

L5   ANSWER 2 OF 11  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Pharmaceutical compositions for anticancer drug delivery

L5   ANSWER 3 OF 11  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Meltrex-formulations containing solid solutions of nearly insoluble drugs:
     Formation of nanoparticles on dissolution in water

L5   ANSWER 4 OF 11  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Methods and compositions for enhancing the bioadhesive properties of
     polymers

L5   ANSWER 5 OF 11  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Compositions and methods for administration of antitumor agents

L5   ANSWER 6 OF 11  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Process for producing nanometer particles by fluidized-bed spray-drying

L5   ANSWER 7 OF 11  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Process for producing nanometer particles by fluid-bed spray-drying

L5   ANSWER 8 OF 11  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Preparation of protein-stabilized pharmaceuticals

L5   ANSWER 9 OF 11  CAPLUS  COPYRIGHT 2007 ACS on STN
```

TI Arterial uptake of biodegradable nanoparticles for intravascular local drug delivery: Results with an acute dog model

L5 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
TI Preparation and study of the characteristics of dithranol:polyvinylpyrrolidone coevaporates

L5 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
TI Stabilized nanoparticles capable of being filtered under sterile conditions

=> d 1-11 ibib abs

L6 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1983:107842 CAPLUS
DOCUMENT NUMBER: 98:107842
TITLE: Effect of the structure of a support on the activity of a supported catalyst in ethylene polymerization
AUTHOR(S): Baulin, A. A.
CORPORATE SOURCE: USSR
SOURCE: Plasticheskie Massy (1983), (1), 55
CODEN: PLMSAI; ISSN: 0554-2901
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB In preparing MgO supports for catalyst systems from TiCl4/MgO and Et3Al [97-93-8] by calcing Mg(OH)2 at 400-800°, increasing the calcination temperature decreased the sp. surface area and residual H2O content of the MgO, leading to decreased content of TiCl4 bonded to the support. The yield of polyethylene [9002-88-4] per kg Ti decreased with increasing Ti content in the catalyst, indicating possible blocking of a portion of the Ti in the bulk of the support. The recommended calcination temperature was 400-500°, which gave 0.72-1.11% Ti in the catalyst and polymer yields of (156-210) + 103 kg/kg Ti.

L6 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:195931 CAPLUS
DOCUMENT NUMBER: 94:195931
TITLE: Alloy steel for wood-shredding cutters
INVENTOR(S): Vander Voort, George F.
PATENT ASSIGNEE(S): Bethlehem Steel Corp., USA
SOURCE: Ger. Offen., 27 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3020240	A1	19801211	DE 1980-3020240	19800528
US 4287007	A	19810901	US 1979-43069	19790529
CA 1160870	A1	19840124	CA 1980-351957	19800514
JP 56000260	A	19810106	JP 1980-70209	19800528
SE 8004013	A	19801130	SE 1980-4013	19800529
US 4353743	A	19821012	US 1980-217650	19801218
US 4353756	A	19821012	US 1980-217728	19801218

PRIORITY APPLN. INFO.: US 1979-43069 A 19790529
AB A wear-resistant and machineable steel with high impact toughness is developed for cutters in rotational wood shredding machines. The steel containing C 0.4-0.6, Mn ≤1, P ≤0.035, S≤0.035, Si≤1.5, Ni≤2, Cr 4-6, Mo 1-3, and Al ≤1.0% is austenitized at ≤1010°, oil quenched, and tempered at 504-549° to an impact toughness of ≥135.6 J and Rockwell C

hardness of apprx.55. Thus, a steel [77578-19-9] containing C 0.55, Mn 0.41, P 0.01, S 0.007, Si 0.71 Ni 0.05, Cr 4.04, Mo 1.52, V 1. 11, Ti 0.003, Nb 0.005, and Al 0.012 had an impact toughness of 305.1 J and Rockwell C hardness of 55.5 after being austenitized at 1010°, oil quenched, and double tempered at 510°.

L6 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1980:477463 CAPLUS
DOCUMENT NUMBER: 93:77463
TITLE: Composition for boronizing
INVENTOR(S): Nogtev, N. N.; Koskov, V. D.; Bondarenko, N. P.
PATENT ASSIGNEE(S): All-Union Scientific-Research Institute of Drilling Techniques, USSR
SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1980, (11), 41.
CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 722703	A1	19800325	SU 1978-2565750	19780109

PRIORITY APPLN. INFO.: SU 1978-2565750 A 19780109
AB The boronizing is improved by adding 1-11% Ti to the title composition containing 85-90% B carbide and 1-11% borax [1303-96-4].

L6 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1969:405754 CAPLUS
DOCUMENT NUMBER: 71:5754
TITLE: Crack formation in the carburized layer of gears during polishing
AUTHOR(S): Tkhagapsoev, Kh. G.; Surzhinskii, G. K.
CORPORATE SOURCE: USSR
SOURCE: Khimicheskoe i Neftyanoe Mashinostroenie (1969), (3), 28-9
CODEN: KHNMAO; ISSN: 0023-1126
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB When polishing elements produced from steel 30KhGT (C 0.27, Si 0.30, Mn 1, Cr 1.11, Ti 0.07, S 0.0257%) carburized as well as hardened, the presence of macro- and microcracks was observed. To determine the reason, samples of steels St 0, St 3, and 30KhGT, treated as above, were investigated. It was estimated that the basic effect on crack formation is exerted by internal residual stress, caused (among others) by the heterogeneus structure (the presence of thick carbide inclusions). Decrease of C concentration in the carburized external layer to 0.6-0.75% leads to the leveling of structures and elimination of the cracking phenomenon.

L6 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1937:56477 CAPLUS
DOCUMENT NUMBER: 31:56477
ORIGINAL REFERENCE NO.: 31:7818e-g
TITLE: Effect of titanium on the hardness and microstructure of heat-treated eighteen per cent chromium steel ingots
AUTHOR(S): Bannon, R. E.
SOURCE: Transactions of the American Society for Metals (1937), 25, 737-49
CODEN: TASEA7; ISSN: 0096-7416
DOCUMENT TYPE: Journal